

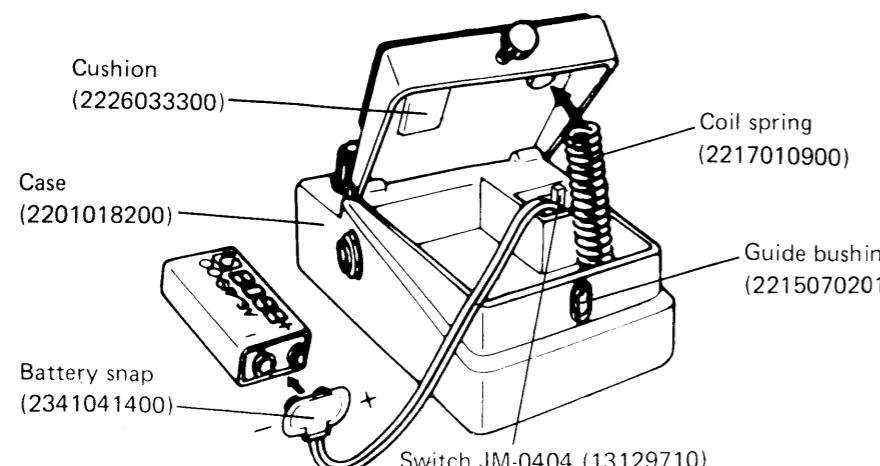
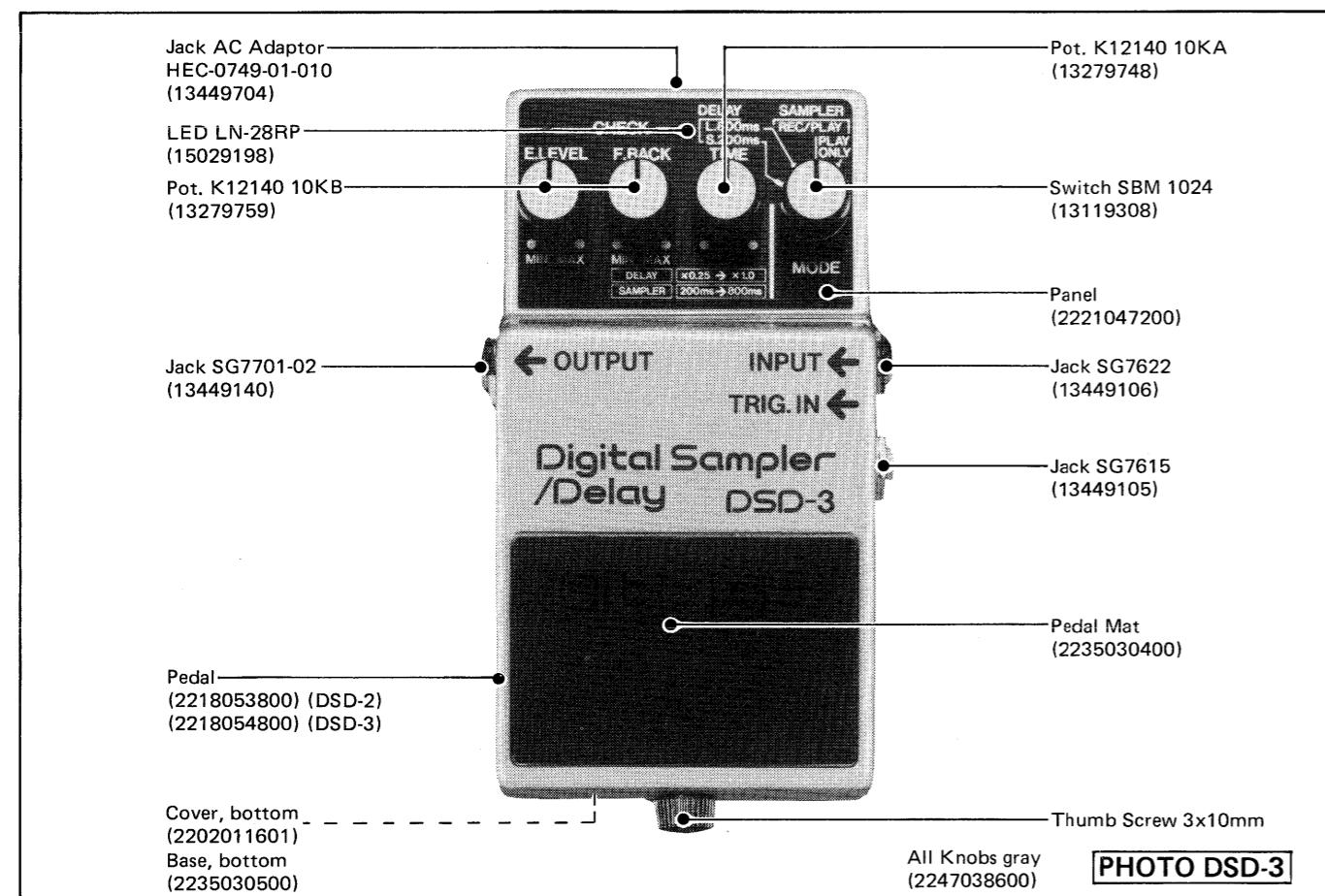
# BOSS DSD-2/3 SERVICE NOTES

First Edition

## SPECIFICATIONS

Power Source	9V Battery x 1 or AC adaptor (BOSS PSA Series)
Current Draw	45mA or 60mA @9V
Sampling Time	200ms (MIN) to 800ms (MAX)
Delay Time	50ms (MIN) to 800ms (MAX)
Frequency Response	Sampling / Delay : 40Hz to 7kHz (+1 / -3 dB) Direct : 10Hz to 60kHz (+1 / -3 dB)
Residual Noise	Sampling / Delay mode : -95dBm (IHF-A) Normal mode : -100dBm or less (IHF-A)
Input Impedance	1MΩ (FET input)
Output Load Impedance	10KΩ or more
Dimensions	70(W) x 55(H) x 125(D) mm / 2-3/4"(W) x 2-3/16"(H) x 4-15/16"(D)
Weight	450g / 1lbs

\*This notes includes the contents of the DSD-2 First Edition and makes it obsolete.  
\*The difference between DSD-2 and DSD-3 is nothing but the pedal.  
\*DSD-2のサービスノート第一版は廃版とし本サービスノートに併合します。  
\*DSD-2とDSD-3の違いはペダルだけで他は全く同じです。



## PARTS LIST

### CASING

2201018200	Case	
2218053800	Pedal	(DSD-2)
2218054800	Pedal	(DSD-3)
2221047200	Panel	
2202011601	Cover	bottom
2350305000	Base	bottom
2235030400	Pedal Mat	
2247038600	Knob	gray

### PCB

75228520	Effect Board	(pcb 2292016801)
Replacement	Effect Board	includes Volume Board and SW Board.
75228530	Volume Board	(pcb 2292016801)
75228540	SW Board	(pcb 2292016801)
75228550	DC Supply Board	(pcb 2291097800)
.....	LED Board	(pcb 2291049600)

### IC

15229811	MB63H101	C-MOS gate array
15179348	M5K4164ANL-15	64K D-RAM ZIP
15219108	NE570	compander NR
15169515	TC74HC00P	hi-speed NAND
15159104H0	HD14011BP	NAND
15159115H0	HD14066BP	analog switch
15189136	M5218L	OP amp
15189152	NJM5534D	OP amp
15189111J1	NJM311D	comparator
15229809	BA634	flip-flop
15119109F	μA78L05	3-terminal voltage regulator
or 15119144	μPC78L05	

### TRANSISTOR

15129104	2SC732TM-GR	
15129137	2SC2603-28-F(or 15129135 2SC2603F)	
15119125	2SA1115-28-F(or 15119124 2SA1115F)	
151391160Y	2SK118-Y	FET

### DIODE

15019523	RD5.1EB-3	zener
15019209T0	S5500G	
15019125	1SS133	
15029117	SLP-135B	LED
or 15029198	LN-28RP	red

### POTENTIOMETER

13279748	K12140 10KA	
13279759	K12140 10KB	
13299151	H0651A009-2,2KB	trimmer
13299311	EVN-31CA00B14 10KB	trimmer
or 13299140	H0651A013 10KB	horizontal trimmer

### JACK

13449105	SG7615	TRIG
13449140	SG7701-02	OUTPUT
13449106	SG7622	INPUT
13449704	HEC-0749-01-010	AC adaptor

### SWITCH

13129710	JM-0404	push
13119308	SBM1024	rotary

### RESISTOR

13919134	RKM14L492-103F	R-2R ladder network
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### FLAT CABLE

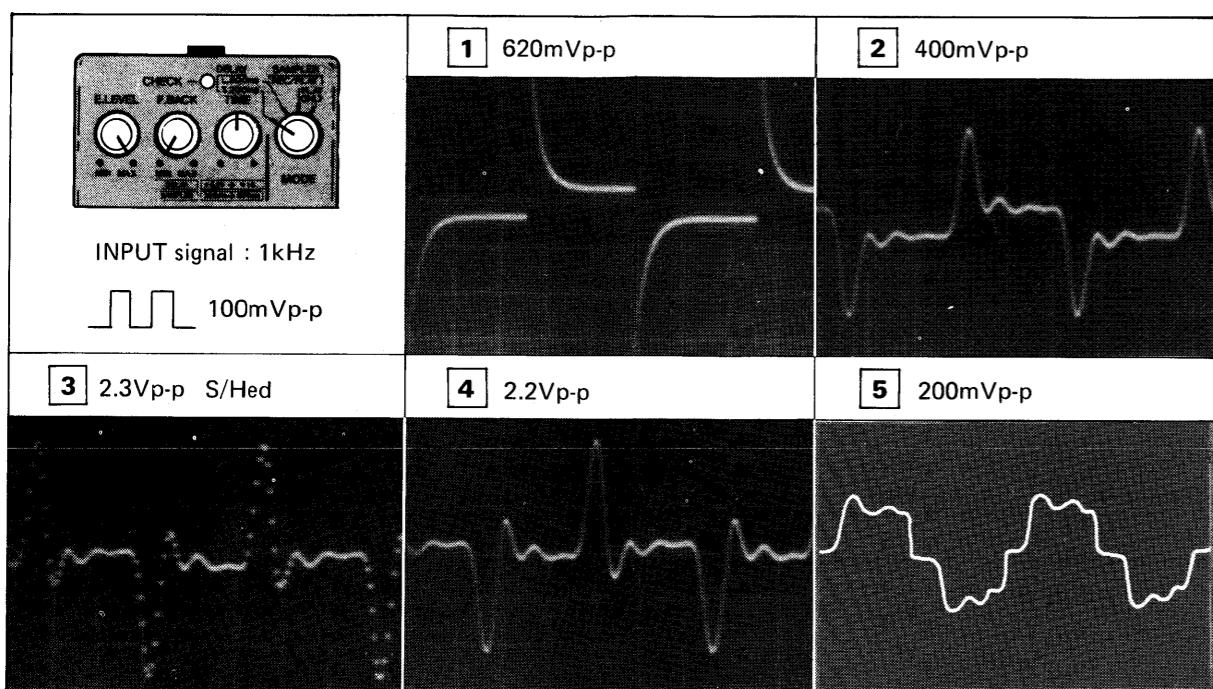
2347016300	4P 180L	
2347016400	3P 90L	
2347014900	4P 150L	
2347015000	3P 180L	

### MISCELLANEOUS

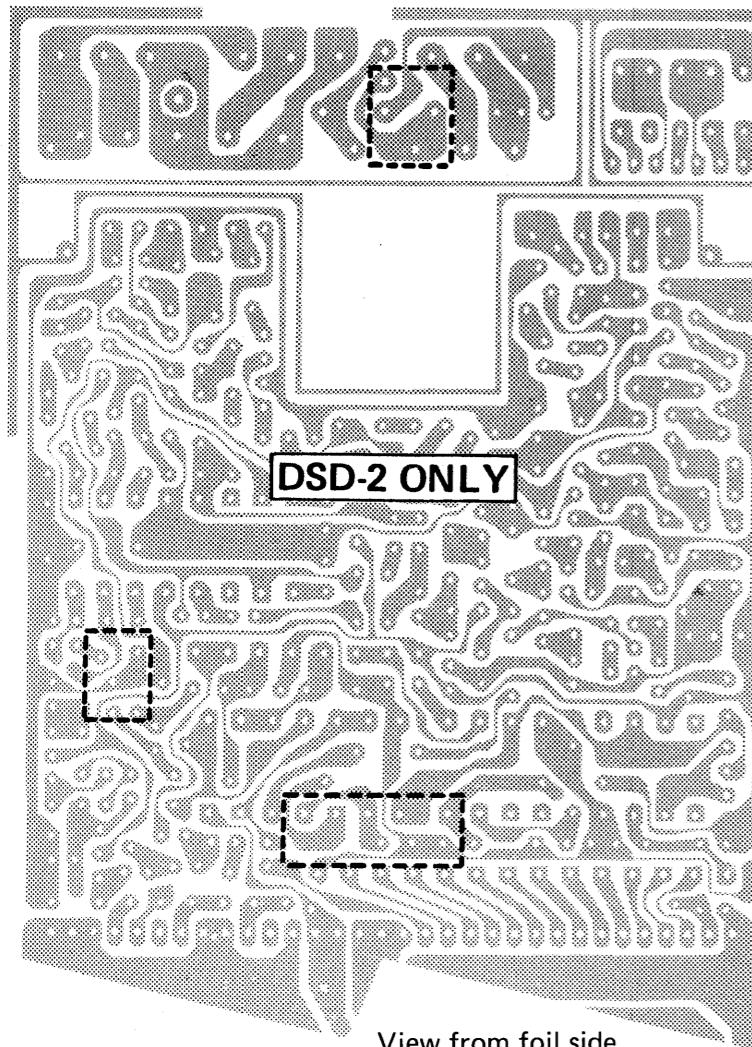
2215070201	Guide Bushing	
2226033300	Cushion	
2217010900	Coil Spring	
2341041400	Battery Snap	
2225021801	Shield Sheet	
2216052900	Plastic Sheet	
13529105	DSS310-55D223S	clear EMI-filter

**WAVEFORMS**

Boxed numbers correspond to those (check point) on the schematic diagram.  
枠内の番号は回路図上のチェック・ポイントの番号に対応しています。



Prior to SN573100 SN573100未満  
(pcb 2292016800) **DSD-2 ONLY**



View from foil side

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

**EFFECT BOARD**

75228520  
(pcb 2292016801)

SN573100-UP ... (DSD-2)

A

B

C

D

E

F

G

H

J

K

L

M

N

O

P

Q

R

S

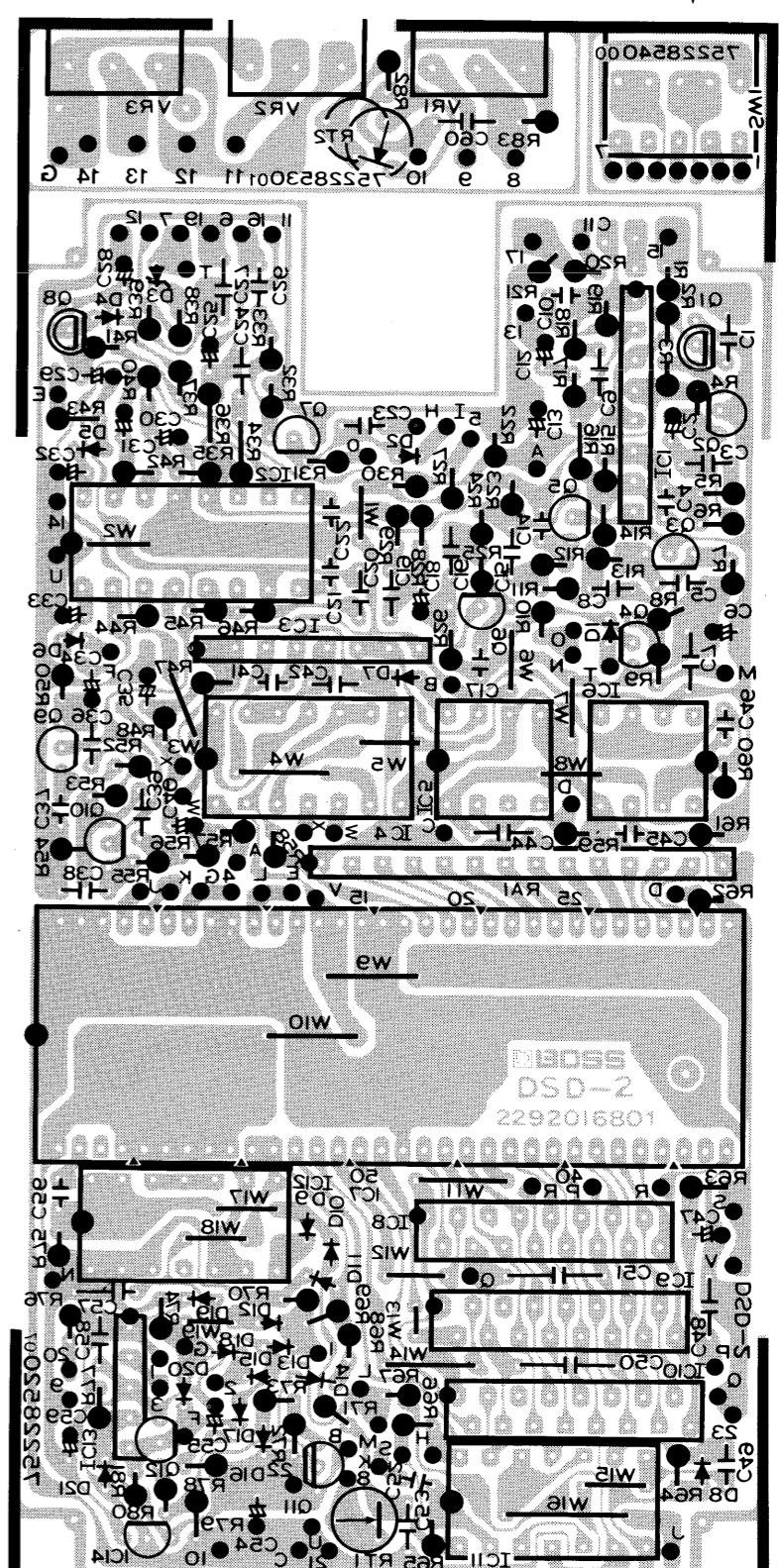
T

U

V

Replacement PCB is supplied in a set of three PCBs as shown below.  
補修用基板としては下記に示す三種の基板を含む一枚基板です。**SW BOARD**

75228540  
(pcb 2292016801)

**VOLUME BOARD** →

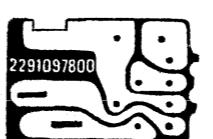
75228530  
(pcb 2292016801)

**EFFECT BOARD** →

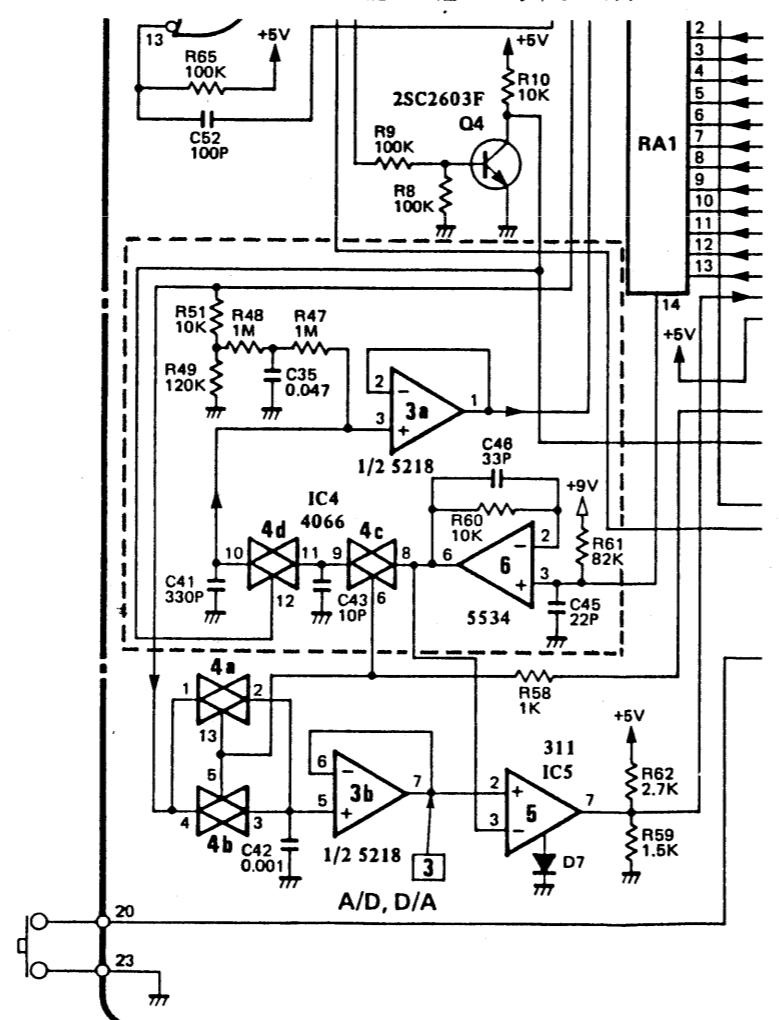
75228520  
(pcb 2292016801)

**DC SUPPLY BOARD**

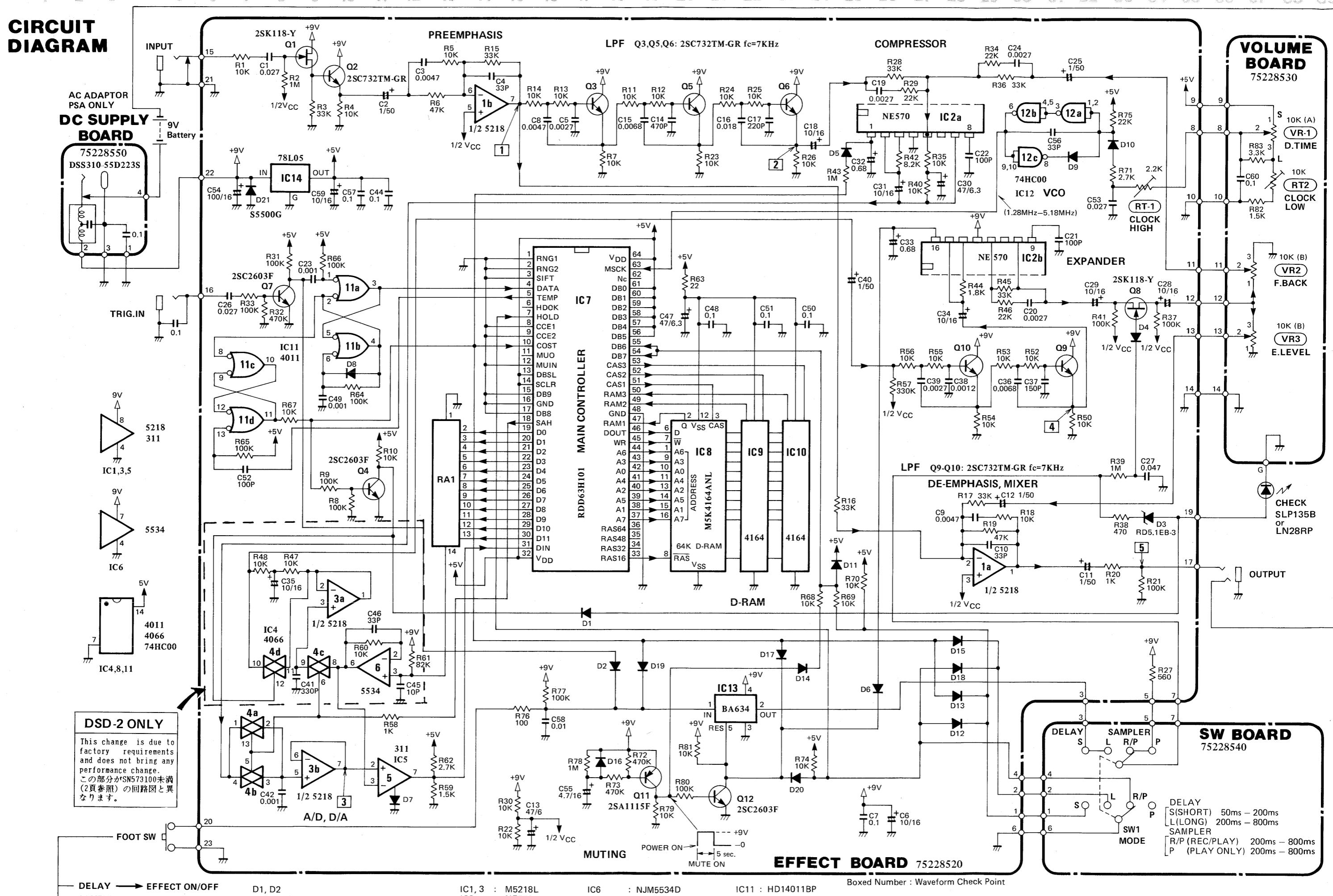
75228550  
(pcb 2291097800)

**LED BOARD**

(pcb 2291049600)



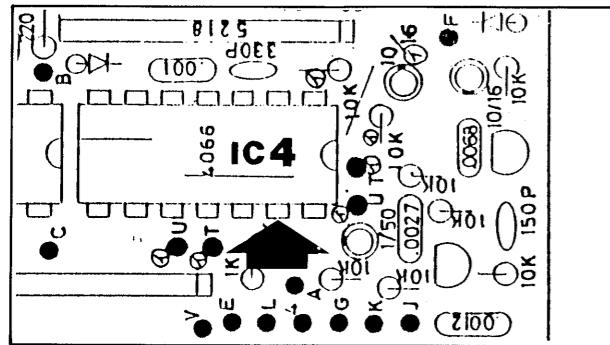
# CIRCUIT DIAGRAM



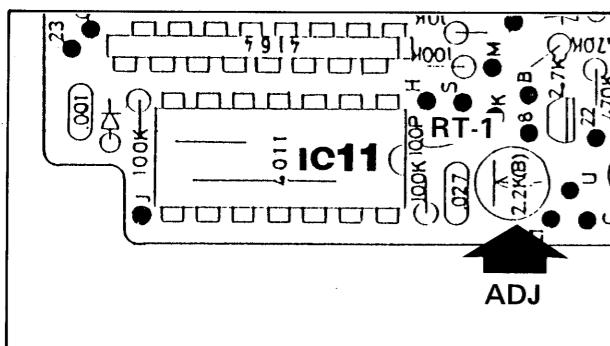
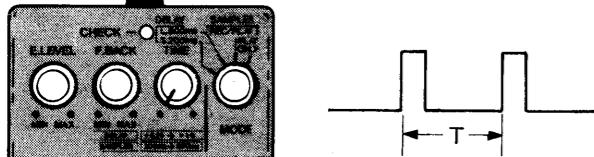
## ADJUSTMENT

### CLOCK FREQUENCY VCO周波数レンジ設定

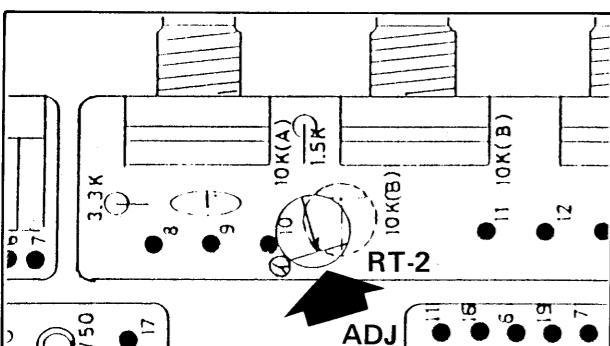
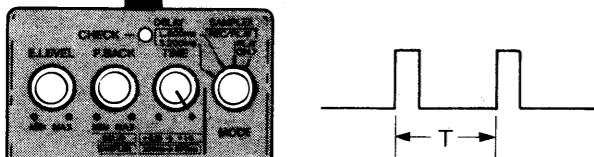
This adjustment is to set the range of Master Clock (MSCK) frequency at IC12 VCO.



1. High End 1. 上限



2. Low End 2. 下限



Connect the scope to pin 13 of IC4 (or IC7 pin 18 SAH).

オシロスコープをIC 4のピン13かIC 7のピン18に接続する。

Adjust RT-1 on Effect Board for  $T = 12.12\mu s$  ( $82.5K \pm 1kHz$ ).

エフェクト基板上のRT-1を調整して $T=12.12\mu s$  ( $82.5K \pm 1kHz$ )にする。

The MSCK should be  $5.28MHz \pm 64kHz$ .

この時マスタ・クロックは $5.28MHz \pm 64kHz$ になる。

Adjust RT-2 on Volume Board for  $T = 50\mu s$  ( $20K \pm 0.2 kHz$ ).

ボリューム基板上のRT-2を調整して $T=50\mu s$  ( $20K \pm 0.2 kHz$ )にする。

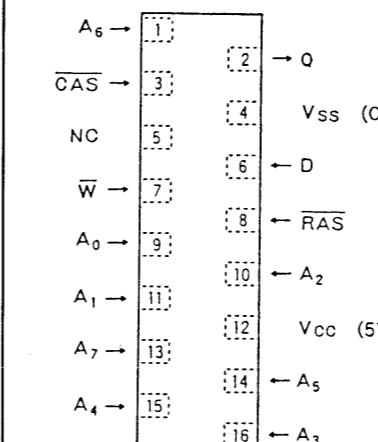
The MSCK should be  $1.28M \pm 12.8kHz$ .

この時マスタ・クロックは $1.28MHz \pm 12.8kHz$ になる。

## IC DATA

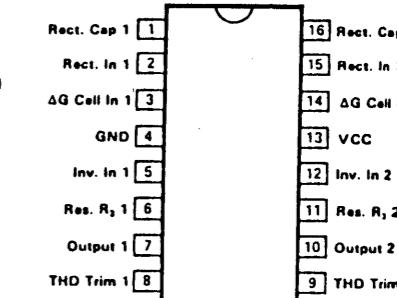
### M5K4164ANL-15

#### Pin Configuration (Top View)



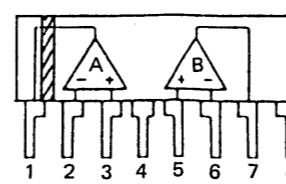
### NE570

#### Pin Configuration (Top View)



### M5218L

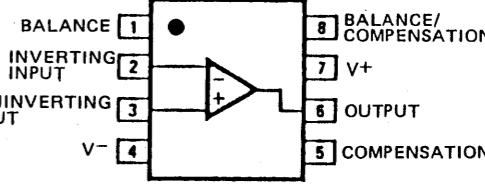
#### Pin Configuration



1. A OUTPUT
2. A-INPUT
3. A+INPUT
4. V-
5. B+INPUT
6. B-INPUT
7. B OUTPUT
8. V+

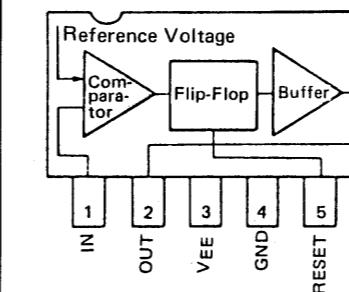
### NJM311D

#### Pin Configuration (Top View)



### BA634

#### Pin Configuration



### 311

#### Pin Configuration (Top View)

